Journal of Affective Disorders 187 (2015) 179–182

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Short Communication

Functioning in bipolar disorder with substance abuse/dependence in a community sample of young adults

Taiane de Azevedo Cardoso [a,b], Thaise Campos Mondin [a], Luciano Dias de Mattos Souza [a], Ricardo Azevedo da Silva [a], Pedro V.S. Magalhães [c], Flavio Kapczinski [c], Karen Jansen [a,b,*]

[a] Universidade Católica de Pelotas – Programa de Pós-Graduação em Saúde e Comportamento, Brazil
[b] University of Texas Health Science Center at Houston – Department of Psychiatry, United States
[c] Laboratório de Psiquiatria Molecular, Hospital de Clínicas de Porto Alegre; Universidade Federal do Rio Grande do Sul – Programa de Pós-Graduação em Ciências Médicas: Psiquiatria, Brazil

ARTICLE INFO

Article history:
Received 10 July 2015
Received in revised form
20 August 2015
Accepted 21 August 2015
Available online 28 August 2015

Keywords:
Bipolar disorder
Illicit substance abuse/dependence
Comorbidity
Functional impairment
Young adult

ABSTRACT

Aim: To assess the functional impairment of young adults with bipolar disorder with substance abuse/dependence comorbidity.
Method: Cross-sectional study within a community sample. Bipolar Disorder was assessed by qualified psychologists using The Mini International Neuropsychiatric Interview – PLUS (MINI-PLUS). Substance abuse and dependence was assessed using the "Alcohol, Smoking and Substance Involvement Screening Test" (ASSIST). Functional impairment was assessed using the Functional Assessment Short Test (FAST).
Results: The sample included 1259 young adults. The prevalence of Bipolar Disorder (BD) without Substance Abuse/Dependence (SAD) comorbidity was 5.9% ($n=74$), and the prevalence of bipolar disorder with substance abuse/dependence comorbidity was 1.4% ($n=17$). Both groups showed higher impairment in overall functioning, interpersonal relationship, and leisure time as compared to controls. In addition, BD+SAD showed higher impairment in the cognitive functioning domain of FAST.
Limitation: A battery of neuropsychological tests was not performed.
Conclusion: Functional impairment is associated with BD, independently of substance abuse or dependence. In addition, BD+SAD present a more severe impairment in the cognitive domain of FAST as compared to controls.

1. Introduction

Epidemiological studies estimate that the total prevalence of Bipolar Disorder (BD) ranges from 1.1% to 7.5% (Clemente et al., 2015; Hoertel et al., 2013; Jansen et al., 2011; Kozloff et al., 2010; Subramaniam et al., 2013). BD has the highest rate of substance abuse among the mood disorders. About 36% to 61% of patients with bipolar disorder have lifetime comorbidity with alcohol use disorder (AUD) and 19% to 46% of other substance use disorder (Cerullo and Strakowski, 2007). Post and Kalivas (2013), postulated that the cross-sensitization among stressors, episodes, and substance misuse contribute to illness progression (Post and Kalivas, 2013). Functional impairment has also been considered as a marker of clinical staging of BD (Grande et al., 2014; Jansen et al., 2012; Kapczinski et al., 2014; Post and Kalivas, 2013). While patients in early stage of illness present a similar functional performance when compared with health controls, patients in late stage showed a more pronounced functional impairment than healthy controls. (Rosa et al., 2014)

A recent systematic review showed that subjects with bipolar disorder with substance use disorder comorbidity (BD+SAD) have more depressive episodes, higher duration of manic episodes, higher number of suicide attempts, and lower quality of life (Cerullo and Strakowski, 2007). However, few studies have investigated the impact of this comorbidity on functioning. Jaworski et al. (2011) suggested that substance use comorbidity is a significant factor explaining social impairment in bipolar disorder and schizophrenia (Jaworski et al., 2011). In addition, Lagerberg et al. (2010) showed that excessive substance use in bipolar disorder is associated with a decrease in functioning (Lagerberg et al., 2010). The data described so far is derived from clinical samples of inpatients and outpatients. What is not known is whether the presence of substance dependence is associated with an excess of functional impairment in community samples of young adults.

* Correspondence to: Rua Gonçalves Chaves, 373, sala 416C. Centro, Pelotas, Rio Grande do Sul CEP 96015-560, Brazil. Fax: 55 21288404.
E-mail address: karen.jansen@pq.cnpq.br (K. Jansen).

http://dx.doi.org/10.1016/j.jad.2015.08.046
0165-0327/

Thus, the aim of this study is to assess functioning in a community sample of young adults with bipolar disorder without substance abuse/dependence comorbidity and bipolar disorder with substance abuse/dependence comorbidity as compared to healthy controls.

2. Method

This is a cross-sectional study corresponding to second wave of a cohort study with population sample. The full description of the first wave has been previously published (Jansen et al., 2011). Briefly, the first wave included 1560 participants from 18 to 24 year old living in urban Pelotas, (Brazil) in the period from 2007 to 2008. The second wave happened from 2012 to 2014, a mean five years after the first phase, all young adults that participated of the first phase ($n=1560$) were invited to return for a follow-up assessment. Subjects were informed about the research objectives and signed an informed consent. Respondents who had a psychiatric disorder were referred for treatment at the Clinic of Research and Extension in Mental Health of the *Universidade Católica de Pelotas* (UCPel). This study was approved by the Research Ethics Committee of UCPel under protocol number 2008/118.

Bipolar disorder was evaluated with Mini International Neuropsychiatric Interview – PLUS (MINI-PLUS) (Sheehan et al., 1998) by qualified and trained psychologists. In cases of doubt about BD diagnosis, subjects were reassessed using the semi-structured clinical interview for DSM Structured Clinical Interview (SCID) (Del-Bem et al., 2001) in order to confirm the diagnosis. Substance abuse or dependence was assessed with the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), the cutoff for substance abuse/dependence was four (Group, 2002; Henrique et al., 2004). The subjects with bipolar disorder and substance abuse/dependence were considered in the group BD+SAD, and the subjects with bipolar disorder and without substance abuse/dependence were classified in the BD group. Functioning was assessed using the Functional Assessment Short Test (FAST) (Cacilhas et al., 2009; Rosa et al., 2007). FAST includes 24 items that evaluate six specific areas of functioning: autonomy, occupational functioning, cognitive functions, financial issues, interpersonal relationships, and leisure time. Autonomy refers to the capacity of the subject of doing things by themselves and taking their own decision; occupational functioning refers to the capacity to maintain a paid job, efficiency of performing tasks at work, working in the field in which the subject was educated and earning according to the level of the employment position; cognitive functioning is related to the ability to concentrate, perform simple mental calculations, solve problems, learn new information, and remember learned information; financial issues involve the capacity of managing the finances and spending in a balanced way; interpersonal relationships refer to relations with friends, family, involvement in social activities, sexual relations, and the ability to defend ideas and opinions; leisure time refers to the capacity of performing physical activities and the enjoyment of hobbies. Scores are determined by the sum of items, which range from 0 (indicating no problems) to 3 (indicating a severe limitation) in the 15 days before assessment. Severity of manic symptoms was assessed using Young Mania Rating Scale (YMRS) (Vilela et al., 2005; Young et al., 1978). Severity of depressive symptoms were assessed using the Montgomery-Asberg Depression Rating Scale (MADRS) (Montgomery and Asberg, 1979).

To describe the sample characteristics among the diagnose groups we performed qui-square, ANOVA, and Mann–Whitney U test. To verify the difference in overall functioning among groups, we performed a Mann–Whitney U test. Multiple linear regression was used to adjust for possible confounders. We considered possible confounding factors all variables associated with diagnostic group and FAST scores with $p<0.20$ (Victora et al., 1997).

3. Results

The sample included 1259 young adults (19.3% of the subjects of the first study wave could not be located or refused to participate). The majority were female 57.8% ($n=728$), Caucasian 70.1% ($n=882$), married 69.3% ($n=873$), socioeconomic status A/B 52.0% ($n=655$), had more than 11 years of education 68.2% ($n=859$), had a job or currently studying 80.0% ($n=1007$) and the mean of age was 25.87 ± 2.16. There was a significant difference between population control, bipolar disorder, and bipolar disorder with substance abuse/dependence comorbidity for gender ($p=0.010$), socioeconomic status ($p=0.001$), marital status ($p=0.033$), and educational level ($p=0.009$).

Prevalence of bipolar disorder without substance abuse/dependence comorbidity was 5.9% ($n=74$) and prevalence of bipolar disorder with substance abuse/dependence was 1.4% ($n=17$). Among the subjects with substance abuse/dependence, the prevalence for each substance was: cannabis (5.9%), polysubstance (41.2%), and other substances (52.9%). Regarding the clinical characteristics, 37 out of 74 subjects with bipolar disorder (50.0%) reported lifetime use of psychiatric medication, and 13 out of 17 subjects with bipolar disorder and substance use disorder comorbidity (76.5%) reported lifetime use of psychiatric medication ($p=0.098$). The median and interquartile range of severity of depressive symptoms between groups was: 10.00 (2.00–19.00) for bipolar disorder and 14.00 (5.00–28.00) for bipolar disorder with substance use disorder comorbidity ($p=0.217$). Regarding manic symptoms, the median and interquartile range was: 6.00 (3.00–9.00) for bipolar disorder and 6.00 (4.00–11.00) for bipolar disorder with substance use disorder comorbidity ($p=0.421$).

The median and interquartile range of overall functioning among the groups was: 6.00 (3.00–11.00) for population controls, 12.00 (7.50–23.00) for BD without SAD, and 12.00 (7.00–35.50) for BD+SAD. Both clinical groups presented higher rates of functional impairment when compared to controls ($p<0.001$) (Fig. 1). A second analysis was performed using the differential domains of FAST across groups. Subjects with bipolar disorder with and without substance abuse/dependence comorbidity showed higher rates of impairment in interpersonal relationships and leisure time when compared to controls. In addition, subjects with BD and substance abuse/dependence showed higher rates of impairment in the cognitive domain as compared to controls, and no difference was observed for this domain comparing BD without SAD and population controls. Adjusting for gender, socioeconomic status,

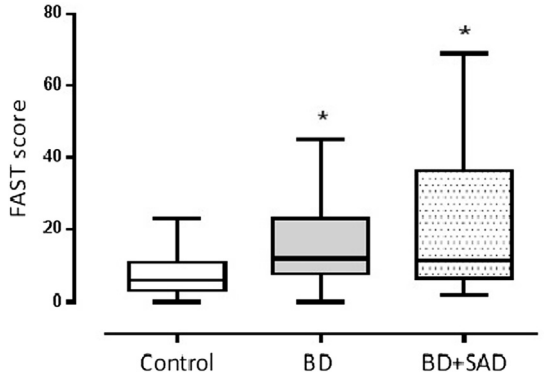

Fig. 1. FAST overall score in population control and diagnose groups.